

Czasopismo Geograficzne - Vol. 26, no. 1/2, 1955.

Romer's regionalization of climate in Poland. p. 136.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955

Uncl.

Subject : USSR/Engineering AID P - 518  
Card 1/1 Pub. 93 - 5/12  
Author : Zinkin, A. M., Kand. of Tech. Sci.  
Title : Construction of shed roofs  
Periodical : Sbor. mat. o nov. tekhn. v stroi., 5, 13-15, 1954  
Abstract : Trust #32 of the Ministry of Construction has designed a new type of shed roof in which the slope side is a cylindrical reinforced concrete shell; this type has been used in the first phase of the construction of the cotton textile Kombinat in Stalinabad. One photo and 2 diagrams.  
Institution : None  
Submitted : No date

ZINKIN, A.M., kandidat tekhnicheskikh nauk.

Precast concrete elements for buildings in seismic regions. Biul.  
stroj.tekh. 13 no.2;14-16 F '56. (MLRA 9:5)  
(Precast concrete construction) (Earthquakes and Building)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

ZIMKIN, A.M., kandidat tehnicheskikh nauk.

Shed roof design. Sbor. nauch. o nov.tehn. v stroi. 16 no.6:13-15 1954.  
(Roofs) (MLRA 7:7)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

ZINKIN, A.M., kand.tekhn.nauk

Building precast floors in earthquake districts. Bet.i zhel.-bet.  
no.6:268-270 Je '61. (MIRA 14:7)  
(Floors, Concrete) (Earthquakes and building)

ZIMKIN A.V.

ANIKEYEV, N.P., glavnnyy red.; BISKE, S.F., red.; BOBYLEVSKIY, V.I., red.;  
VAS'KOVSKIY, A.P., red.; VERESHCHAGIN, V.N., red.; DRABKIN, I.Ye..  
red.; YEVANGULOV, B.B., red.; YEFIMOVA, A.F., red.; ZIMKIN, A.V.,  
red.; LARIN, N.I., red.; LIKHAREV, B.K., red.; MENNER, V.V., red.;  
MIKHAYLOV, A.F., red.; NIKOLAYEV, A.A., red.; POPOV, G.G., red.;  
POPOV, Yu.N., red.; SAKS, V.N., red.; SEMEYKIN, A.I., red.;  
SIMAKOV, A.S., red.; TITOV, V.A., red.; SHILK, N.A., red.; EL'YANOV,  
M.D., red.; YAKUSHEV, I.R., red.; V redaktirovani priniatii uchae-  
tiye: ANDREYEVA, O.N., red.; BAYKOVSKAYA, T.N., red.; BOLKHOVITINA,  
N.A., red.; BORSUK, M.O., red.; VASIL'YEV, I.V., red.; VASILEVSKAYA,  
N.D., red.; VOLEVODKVA, Ye.M., red.; LEVSELEV, K.P., red.; KIPARI-  
SOVA, L.D., red.; KHASNYY, L.I., red.; KRISHTOFOVICH, L.V., red.;  
KULIKOV, M.V., red.; LIBROVICH, L.S., red.; MARKOV, F.G., red.;  
MODZALEVSKAYA, Ye.A., red.; NIKIFOROVA, O.I., red.; OBUT, A.M.,  
red.; PCHELIANTSEVA, G.T., red.; RZHONSNITSKAYA, M.A., red.; SEDOVA,  
M.A., red.; STEPANOV, D.L., red.; TIMOFEEV, B.V., red.; KHUDOLEY,  
K.M., red.; CHEMEKOV, Yu.F., red.; CHERNYSHEVA, N.Ye., red.;  
DERZHAVINA, N.G., red.izd-va; GUROVA, O.A., telchn.red.

(Continued on next card)

ANIKEYEV, N.P.---(continued) Card 2.

[Decisions of the Interdepartmental Conference on the Unified Stratigraphic Columns of the Northeastern Part of the U.S.S.R.]  
Resheniya Mezhdromstvennogo soveshchaniia po razrabotke unifitsirovannykh stratigraficheskikh skhem dlya Severo-Vostoka SSSR,  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nadr,  
1959. 65 p.

(MIRA 13:2)

1. Mezhdromstvennoye soveshchaniye po razrabotke unifitsirovannykh stratigraficheskikh skhem dlya Severo-Vostoka SSSR, Magadan, 1957.  
(Soviet Far East--Geology, Stratigraphic)

DYUDIN, A.F.; SHLYKOV, M.M.; ZINKIN, F.I., progruporg, rezchik, udarnik kommunisticheskogo truda; GORYACHEV, V.M., slesur', profgruporg; FEDOTOV, V.F., frezerovachnik, chlen brigady kommunisticheskogo truda.

Surround the corn growers with care and attention. Sov.profsoizy 17 no.7:24 Ap '61. (MIRA 14:3)

1. Predsedatel' zavkoma Penzenskogo metiznogo zavoda (for Dyudin).
2. Zamestitel' predsedatelya proizvodstvenno-massovoy komissii zavkoma Penzenskogo metiznogo zavoda (for Shlykov).  
(Penza Province—Corn (Maize))  
(Socialist competition)  
(Penza—Metalwork)

*-114 RIN, V.*  
RAFF, Mikhail Il'ich; LIKHODEY, Aleksandr Markovich; ZINKIN, V., veduchiy  
redaktor; BESPYATOV, E., tekhnichniy redaktor

[Dispatcher service in automotive transportation] Dyspatchers'ka  
sluzhba na avtomobil'nomu transporti. Kyiv, Derzh. vyd-vo tekhn.  
lit-ry URSR, 1957. 114 p.  
(Transportation, automotive)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

ZINKINA, P.G.

Calculating plates on elastic foundations beyond the elastic limit.  
Trudy Inst. soor. AN Uz. SSR no. 4r79-90 '54. (MIRA 11:3)  
(Elastic plates and shells)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 178 (USSR) SOV/124-58-11-13123

AUTHOR: Zinkina, P. G.

TITLE: Elastic-plastic Bending of a Strip Plate on an Elastic Foundation  
Caused by Forces Distributed Linearly Along the Edges (Uprugoplasticheskiy izgib lentochnoy plity na uprugom osnovanii pogonnymi silami po krayam)

PERIODICAL: Sb. nauchno-issled. rabot Tashkentsk. tekstil'n. in-t, 1956, Nr 3,  
pp 94-100

ABSTRACT: Examination, with consideration of elastic-plastic deformations, of the cylindrical flexure of a plate lying on an elastic foundation under the action of a loading uniformly distributed along the edges. For the purpose of the solution, an elementary plate of unit width is imagined to be cut out; this unit plate is considered as a beam lying on the elastic foundation and subjected to forces applied at its ends. The solution is sought by variational methods. The elastic-plastic deflection is represented by means of a single term which consists of the product of the elastic deflection by a certain constant quantity.

M. I. Guseyn-Zade

Card 1/1

LEYDERMAN, Yu.R.; MANSUROV, N.M.; ZINKINA, P.G.

Method for evaluating bending moments and shearing forces due to  
the action of seismic loads on a flexible structure. Sbor.nauch...  
issl.rab. TTI no.9:105-117 '60. (MIRA 15:6)  
(Earthquakes and building)

ZINKINA, P.G., dots.

Elastic-plastic flexure of elastically based band plates caused  
by peripheral linear stresses. Sber. nauch.-issl. rab. TTI no.3:  
94-100 '56. (MIRA 11:9)  
(Elastic plates and shells)

EA

19

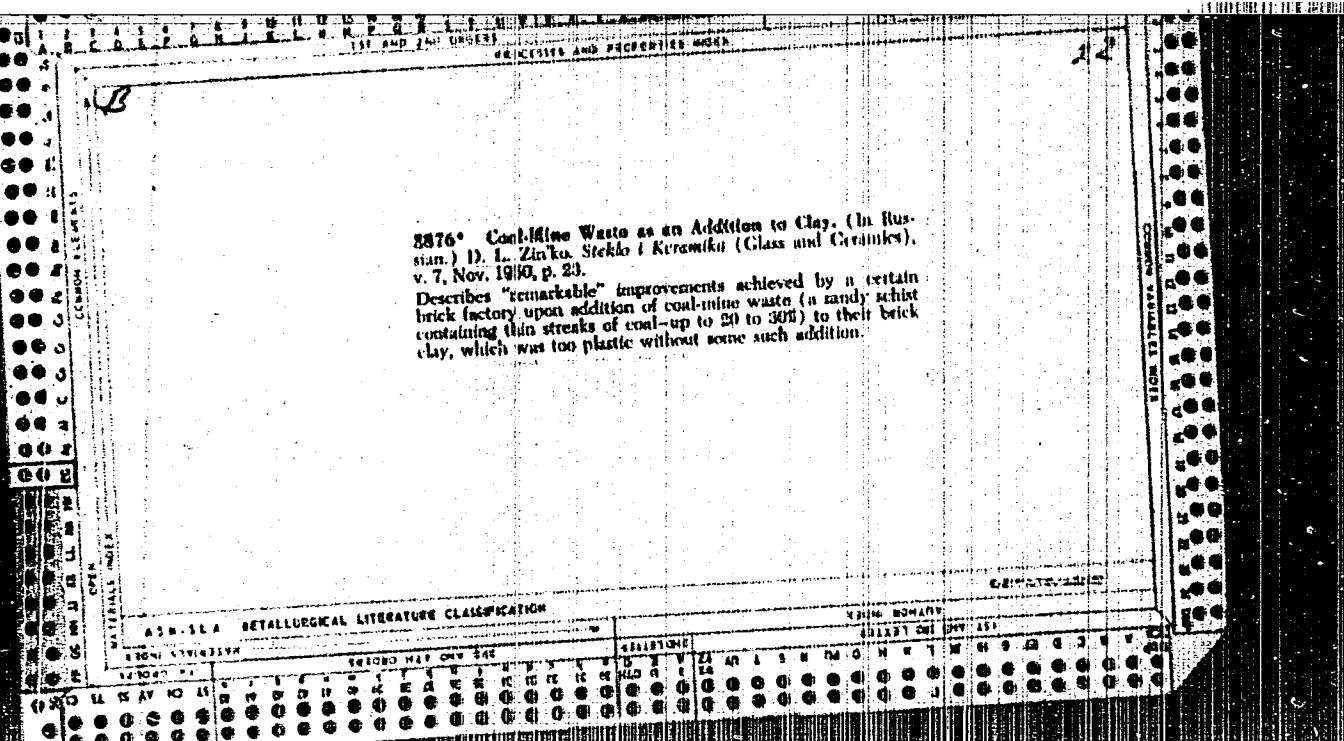
Extract from oral interview of admiral to date. (1) In  
connection with V. Kireev, T., No. 11, 23(1960).—On the  
water duty, 50-60% of ready states were used.  
B. Z. Kuznetsov

1951

B6S

*Ceramic  
Production  
Akashor Ceramic*

**E&I. Clay mine refuse as an substitute for claywars.**--D. L. Munro (Bell  
Kreem, 2, No. 11, 25, 1910). Some notes are given on secondary clay with quartz  
schists, containing 30-35% coal, as addition to the clay used in making building  
bricks. Drying and firing were greatly facilitated. A heat conductivity of 60-70%  
during firing products with such combustible substances is claimed.



W- Structural  
Clay Products

*C*

Wastes from coal mines as an admixture to clay. D. L. Zinov'ev. *Steklo i Keram.*, 7 [1]: 23 (1950). - Lightweight structural brick was made from highly plastic heat-sensitive clay with admixtures of 15 and 30% coal-mine wastes. The wastes consisted of sandy slates with streaks of coal of up to 20 to 30%. The green product withstood rapid drying under natural conditions in wind. The use of these slates permitted a reduction in fuel costs. The brick met Russian requirements for structural

ZIN'KO, A.V., inzh. (g.Ordzhonikidze)

Ballast preparation machinery. Put' i put. khoz. no.8:9 Ag '59.

(MIRA 13:3)

(Ordzhonikidze--Ballast (Railroads))  
(Crushing machinery)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

ZIN'KO, A.V., inzh.

~~Gravel processing machine. Transp.stroi, 9 no.10533-35  
O '59.~~  
(Sand and gravel plants)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

TURKENICH, D.I.; SMOKTIY, V.V.; POTRUSAYEV, A.P.; POGREBNOY, Yu.N.;  
ALEKSEYEV, L.A.; ZIN'KO, B.F.

Iron oxidation and the degree of oxygen use in converter  
smelting. Izv. vys. ucheb. zav., chern. met. 7 no.1:46-51 '64.  
(MIRA 17:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy  
metallurgii.

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

PREYS, G.A.; ZINKO, B.M.

Effect of shot peening of steel on the sticking in friction.  
Trudy KTIPP no.24:174-180 '61. (MIRA 15:6)  
(Steel—Testing) (Shot peening)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

PREYS, G.A.; ZINNO, B.M.

Effect of the strengthening of the surface layer on the wear resistance  
of steel. Trudy KTIIPP no.21:143-152 '59. (MIRA 14:1)  
(Steel--Testing)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

S/123/62/000/010/007/013  
A004/A101

AUTHORS: Proys, G.A., Zinko, B.M.

TITLE: The effect of workhardening with metal shot blast on the galling during friction

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 10, 1962, 35, abstract 10B201. ("Tr. Kiyevsk. tekhnol. in-ta pishch. prom-sti", 1961, no. 24, 174 - 180)

TEXT: The authors give an account of a method of investigating the effect of shot-blast workhardening on the galling of steel operating in pairs with hardened grade 45 steel. The test specimens from the steel grades 45, МХ15 (ShKh15) and X 12 M (Kh12M) were subjected to hardening with subsequent tempering, while the specimens of 18 XГТ (18KhGT) grade steel were normalized at 920°C and tempered at 200°C. Then all specimens were shot-blasted with 1 mm diameter shot at 2,100 rpm. The depth of the workhardened layer amounted to 0.2 - 0.3 mm. Wear tests were carried out on a specialized installation in air and chemically pure argon. It was shown that the shot-blast workhardening of steel components somewhat increases their resistance to contact galling. The established friction coefficients

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The effect of workhardening....

S/123/62/000/010/007/C13  
A004/A101.

in the friction of steel specimens on hardened grade 45 steel are somewhat lower than in the friction of specimens which were not subjected to shot-blast workhardening. It is pointed out that in evaluating the galling of steels subjected to shot-blast workhardening, it is necessary to take into account the gradient of mechanical properties of the hardened surface layer.

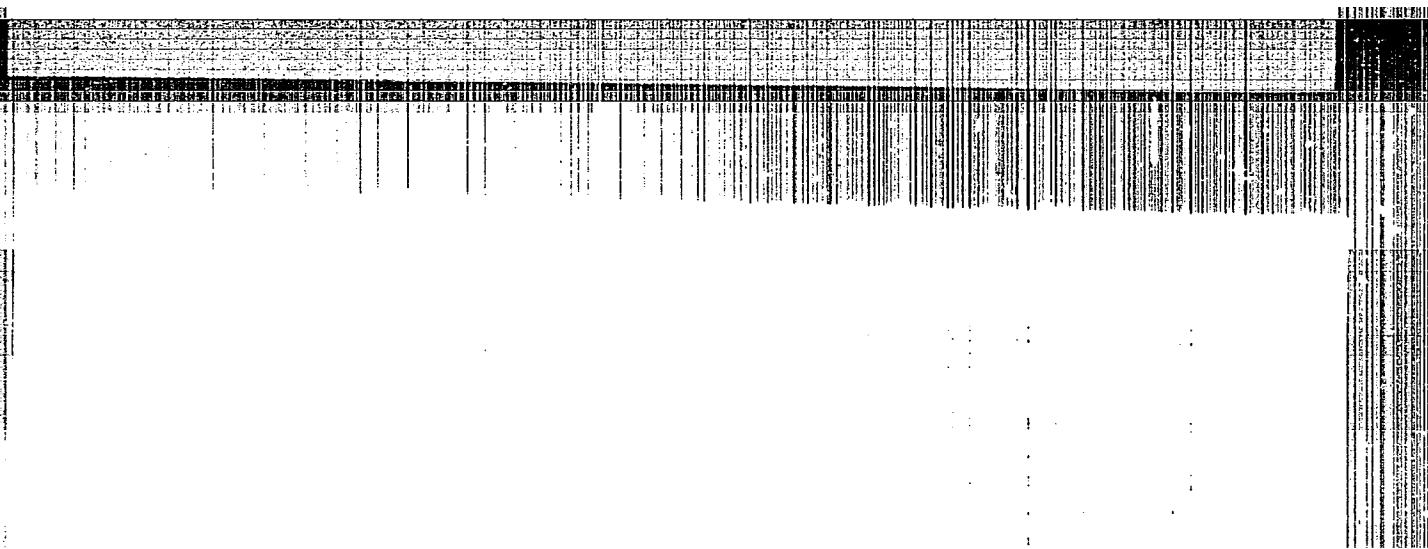
E. Spivak

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 07/16/2001

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APPROVED FOR RELEASE: 07/16/2001

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APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

ACC NR: AP6031734

SOURCE CODE: UR/0072/66/000/009/0022/0024

AUTHOR: Avetikov, V. G. (Candidate of technical sciences); Fomina, N. P.; (Candidate of technical sciences); Zin'ko, E. I. (Candidate of technical sciences)

ORG: State Scientific Research Electroceramic Institute (Gosudarstvennyy nauchno-issledovatel'skiy elektrokeramicheskiy institut)

TITLE: Zinc orthosilicate based high frequency ceramics with low coefficient of thermal expansion

SOURCE: Steklo i keramika, no. 9, 1966, 22-24

TOPIC TAGS: ceramic product property, ceramic dielectric, HF ceramic material, zinc silicate, zinc compound, silicate, thermal expansion, ceramic material

ABSTRACT: Synthesis and properties of willemite (zinc orthosilicate) based ceramic bodies have been studied for the purpose of preparing a compact, electroinsulating, high-frequency ceramic material with a low coefficient of linear thermal expansion (a). The procedure of preparing ceramic bodies of various compositions was described. Quartz sand (98% SiO<sub>2</sub>) and zinc oxide (99.92% ZnO) were the basic starting materials and boron oxide or fluor spar were used as mineralizing additives. Petrographic analysis of the compacted and sintered samples indicated that the addition of mineralizing agents contributed to the formation of a single crystalline phase-willemite at a decreased temperature and with a larger grain size than without additives. Ceramic body CB-3 with 2.9% fluor spar additive was selected for further study because

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UDC: 666.3.022.051

ACC NR: AP6031734

preliminary tests of the compacted and sintered samples indicated the highest static bending strength and dielectric constant in that body. Further, standard tests of physical, mechanical, and electric properties of the CB-3 body were carried out with die cast samples which were sintered at 1280C. The die casting procedure was described. Tabulated data showed that CB-3 is a high-frequency ceramic material with a low  $\epsilon$  ( $1.4-1.6 \cdot 10^{-6}$  in the 20-100C range) and increased heat resistance in comparison with the celsion, porous cordierite, and steatite ceramics. This material may be particularly useful in applications requiring increased heat-resistance and low expansion at elevated temperature. Orig. art. has: 2 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001/

Card 2/3

AVETIKOV, V.G.; ZIN'KO, E.I.

Effect of iron oxides on the properties of steatite electric  
insulation ceramics. Stek. i ker. 18 no. 3:19-22 Mr '61.

(MIRA 14:5)

(Talc) (Electric insulators and insulation)

ZIN'KO, E. I.

ZIN'DO, E. E. -- "Study of the Effect of the Composition of Vitreous Phase on the Dielectric Losses and the Mechanical Properties of Steatite." Sub 13 Oct 52, Moscow Order of Lenin Chemicotechnological Inst imeni D. I. Mendeleyev (Dissertation for the Degree of Candidate in Technical Sciences)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

AVETIKOV, V.G.; ZIN'KO, E.I.; ZASEDATELEVA, N.A.

Ceramics made with wollastonite for use with high-frequency  
currents. Stek.i ker. 17 no.3:25-29 Mr '60. (MIRA 13:6)  
(Ceramicos)

AVETIKOV, V.G., kand.tekhn.nauk; BELINSKAYA, G.V., kand.tekhn.nauk;  
ZIN'KO, E.I., kand.tekhn.nauk

Properties of talcs used in the ceramic industry of the U.S.S.R.  
Trudy GIEKI no.2:71-82 '57. (MIRA 11:7)  
(Talc) (Ceramic industries)

AUTHORS: Avetikov, V. G., Zin'ko, E. I. SOV/72-58-7-9/19

TITLE: Processes Taking Place During the Agglomeration of Plastic Steatite Masses (Protsessy, protekayushchiye pri spekanii plastichnykh steatitovykh mass)

PERIODICAL: Steklo i keramika, 1958, Nr 7, pp. 29 - 33 (USSR)

ABSTRACT: The plastic steatite mass TK-21 was investigated with the assistance of I.S.Rozenblum, Engineer. It is produced on the basis of the talc of the Onotsk deposit and contains the clay from the Chasov-Yar deposit as clay-containing components, as well as bentonite (bentonit) of the Oglazny deposit. Chalk from the Belgorod deposit served as flux. Approximately 7% of the Onotskiy talc which was added to the mass was previously burnt at a temperature of from 1300 to 1350°. The TK-21 mass was investigated by the authors by means of the method of thermographic analysis in which case shrinkage and loss in weight were noted at the same time. The authors stress that the exothermic effect of the formation of the magnesium-metasilicate on the differential curve of the mass-heating was not observed, which was meanwhile found out by the investigations carried out by D.S.Belyankin, V.V.Ivanov,

Card 1/4

Processes Taking Place During the Agglomeration of SOV/72-58-7-9/19  
Plastic Steatite Masses

V.V.Lapin, V.G.Avetikov, G.V.Belinskaya, E.I.Zin'ko, S.N.Grachev (Ref 1), as well as by the thermographical investigations of the talc and its mixture with magnesium carried out by A.I.Avgustinik, I.L.Sverchkova and V.V.Lapin (Ref 2). The lacking of the effect of magnesium-metasilicate formation on the thermograms of the Onotskiy talc proves that the process in these cases takes a different course, as also results from the works carried out by A.I.Avgustinik and V.S.Vigdergauz (Ref 1). The processes of burning of the steatite mass TK-21 were investigated by the burning of samples of both this mass and of the analogous masses, but without chalk (mass n.1), without unburnt chalk (mass n.2), or without clayey materials (mass n.3). This made the determination of the rôle played by the mentioned materials in these processes possible. The soluble calcium-and siliconoxides in the burnt samples were determined by the method developed by S.D.Notkina. The loss occurring during burning within the temperature interval of from 200 to 1100° was determined for the masses TK-21 and number 1 (Fig 1). The reactions of silicate formation in the solid phase were investigated in the TK-21-masses, in number 2 and number 3, by means of the chemical analysis of samples which were

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Processes Taking Place During the Agglomeration of  
Plastic Steatite Masses

72-58-7-9/19

burnt at various temperatures (Fig 2). An investigation of the burning processes of the steatite masses TK-21, number 2 and number 3 showed that the calcium silicates in the TK-21 mass are formed chiefly due to the reactions taking place between the chalk and the clay containing components, and to a smaller extent due to reactions taking place between chalk and talc. The change of the water absorption and shrinkage of the samples in dependence on the burning temperatures is shown (Fig 3). The petrographical investigation of the samples of steatite TK-21 was carried out by the petrographer E.I.Medvedovskaya. The grindings of these samples at burning temperatures of  $1100^{\circ}$ ,  $1200^{\circ}$ ,  $1250^{\circ}$  and  $1280^{\circ}$  are shown (Figs 4,5,6 and 7). The quantity of glass in the case of the burning temperature of  $1280^{\circ}$  was determined by the method developed by G.N.Voronkov and E.I.Frid (Ref 1). Conclusions:  
1) The first stage of the process of agglomeration of steatite TK-21 (up to  $1000^{\circ}$ ) is characterized by reactions taking place in solid state. 2) The second stage is characterized by the presence of a melt and takes place within the temperature interval of from  $1100^{\circ}$  to  $1280^{\circ}$ . 3) The heterogeneity of the structure of

Card 3/4

Processes Taking Place During the Agglomeration of  
Plastic Steatite Masses

72-58-7-9/19

the fragments and the content of vitreous phase increases during the approximation to the final temperature. This stage of sintering is accompanied by an intense solidification of steatite. There are 7 figures and 10 references, 8 of which are Soviet.

1. Talc--Processing    2. Bentonite--Applications    3. Talc--Test  
methods    4. Talc--Temperature factors

Card 4/4

USSR / Electricity

G

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9601  
Author : Avetikov, V.G., Belinskaya, G.V., Zinko, E.L.  
Inst : Not given  
Title : Investigation of the Properties of Plastic Steatite Mass  
for Production of Insulators.  
Orig Pub : Tr. Gos. issled. elektrokeram. in-ta, 1956, vyp. 1, 92-108  
  
Abstract : Investigation results are reported in the field of the study  
of various plastic steatite masses, and the role of the glass-  
like phase in the change of the property of such ceramic ma-  
terials, in which the fundamental crystal phase is the cli-  
noenstatite ( $MgO.FeO_2$ ), is explained. The initial materials  
used for the preparation of experimental steatite mass were  
onotsk talcum, Chasovyursk clay, Oglanlinsk bentonite, "Us-  
ta" magnesia, chalk, barium carbonate, strontium carbonate,  
and Lyuberetsk quartz sand. The specimens for the tests were  
  
Card : 1/2

USSR / Electricity

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9601

Abstract : fired in laboratory silite furnaces with a volume 0.3 cubic meters and in flame furnaces with a volume 0.2 -- 0.3 cubic meters for 7 -- 9 hours in an oxidizing gas atmosphere. The results of the investigations on the effect of the raw and calcined talcum and of clay components on the technological properties of the steatite plastics are discussed, as are the changes in the properties of the steatite with the contents of the clay and the bentonite, magnesium oxide, chalk, strontium carbonate, barium carbonate, and additives of quartz sand. Compositions of plastic steatites suitable for industry are developed.

Card : 2/2

ZIN'KO, E.I.

112-1-129

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957,  
Nr 1, p. 17 (USSR)

AUTHORS: Avetikov, V.G., Belinskaya, G.V., Zin'ko, E.I.

TITLE: Examination of Properties of Steatitic Plastic  
Materials for the Production of Insulators (Issle-  
dovaniye svoystv plastichnykh steatitovykh mass  
dlya proizvodstva izolyatorov)

PERIODICAL: Tr.Gos. issled. elektrokeram. in-ta, 1956, Nr. 1,  
pp. 92-108.

ABSTRACT: Steatite (C) represents a talc-containing ceramic with  
clinoenstatite crystallization possessing small dielec-  
tric losses and increased mechanical strength; it is used  
mostly for the production of small-size adjusting parts  
and of large antenna insulators of various profiles.

Card 1/3

112-1-129

Examination of Properties of Steatitic Plastic Materials (Cont.)

The influence of crude and burnt talc and of clayey components upon the processing properties of C plastic materials was examined, and also the dependence of the properties of C on the contents of clay and of bentonite, MgO, CaCO<sub>3</sub>, SrCO<sub>3</sub>, BaCO<sub>3</sub>, and admixtures of SiO<sub>2</sub>. Experimental batches were prepared by simultaneous mixing and grinding in the presence of water of all the components of the mixture in the C-ball mill with the use of C-balls. Samples and testing procedure conformed with FOCT 5458-50. The increase of the contents of MgO in the composition of C-masses leads to a lowering of Tg $\delta$ . The most efficient way of adding MgO appeared to be the introduction of a specially prepared cake of talc and MgO. The increase in the composition of the glass of oxides of Ca, Sr, and Ba caused an increase of the light

Card 2/3

112-1-129  
Examination of Properties of Steatitic Plastic Materials (Cont.)

refraction of the glass and a lowering of the  $t_g$ . Thus the increase in the vitreous phase of C of the ratio  $\text{MgO}:\text{SiO}_2$  in all the examined cases causes a lowering of  $t_g$ . The basic role in changing the  $t_g$  is played by the composition of the vitreous phase and not by its quantity. The quantity of the vitreous phase is determined by the initial composition of the mass and the kilning temperature of C. The compositions developed of plastic C-materials, which answer the requirements of FOCT 5458-50, class IV, group "a" and "b", and the industrial processes of production from them of high-voltage and HF-insulators were turned over to the industry.

Bibliography: 5 titles.

Card 3/3

M.D.M.

ZIN'KO, F.

When the sonorous speeches are finished.... Rabotnitsa 36  
no.11:20-21 N '58. (MIRA 12:2)  
(Women--Employment)

S/072/61/000/003/002/003  
B105/B206

AUTHORS: Avetikov, V. G., Zin'ko, E. I.

TITLE: Effect of ferrous oxides on the properties of steatite electroinsulation ceramics

PERIODICAL: Steklo i keramika, no. 3, 1961, 19-22

TEXT: The effect of low-ferriferous and ferriferous talcs from the Shabrovskiy i Miass deposits on the properties of steatite ceramics was investigated at the Gosudarstvennyy issledovatel'skiy elektrokeramicheskiy institut (State Research Institute of Electroceramics). The applicability of talc from the Shabrovskiy deposit as well as the effect of the gas medium during firing on the properties of steatite ceramic materials were studied in this paper. N. A. Zasedateleva assisted in the experiments. Shabrovskiy floated talc and low-ferriferous talc from the Onotskoye deposit, for comparison, were used for the experiments. The chemical compositions of these talcs are mentioned in Table 1. Table 2 gives the content (in %) of ferrous oxides in talcs.

Effect of ferrous oxides on the properties...

S/072/61/000/003/002/003

B105/B206

analysis and, for comparison, their total content as  $\text{Fe}_2\text{O}_3$ . During firing in an oxidizing gas medium, the major part of iron is present in the form of oxide (ic) ( $\text{Fe}_2\text{O}_3$ ), and the minor part in the form of oxide (ous) ( $\text{FeO}$ ). Firing in a regenerating gas medium brings on inverse results. The petrographic study of the samples (by the petrographer E. I. Medvedovskaya) showed that they mainly consisted of crystalline meta-silicate magnesium as well as glass which was distributed evenly enough and showed different refractive indices. Experiments showed that an increase of ferrous oxides (from 0.87 up to 7%) in the composition of steatite ceramics on the basis of Onotskoye talc led to a gradual decrease of the sintering temperature from 1290 to  $1210^{\circ}\text{C}$ , independently of the gas medium. The change of electrical, mechanical and thermal values of steatite ceramics, dependent on the content of ferrous oxides (converted to  $\text{Fe}_2\text{O}_3$ ), as well as of the gas medium during firing, is represented in Figs. 1 and 2. In conclusion, the authors make the following statement: the improvement of all characteristic values of the material, prepared on the basis of Shabrovskoye talc, during firing in the regenerating gas medium is due to an increased content of iron (II) oxide in the vitreous phase, and a

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Effect of ferrous oxides on the properties...

reduced content of iron (III) oxide. The increase in strength of the ceramics causes an increase of their thermal stability. The structural changes in the lattice of silica glass on the introduction of iron (III) oxide are different, and depend on the composition of the glass and its oxygen content. Studies showed that the increase of bivalent iron cations in steatite ceramics in the form of oxide (ous) had a positive effect on its properties. A comparison of ceramic materials on the basis of the Onotskoye and Shabrovskiy talcs with equal content of ferrous oxides in the masses ( $FeO$  and  $Fe_2O_3$ ) showed great differences in their properties. The stratified structure of the Shabrovskiy talc is described as being the cause for the poor thermal stability of steatite ceramics prepared on its basis. If the ratio  $Fe_2O_3 : FeO$  is more than unity with equal composition of the mass, the properties of the material become worse. The presence of up to 7% ferrous oxides in steatite ceramics at the ratio  $Fe_2O_3 : FeO < 1$  improves the  $\tan\delta$  of dielectric losses, the mechanical strength and thermal stability. Shabrovskoye talc is not recommended for the manufacture of steatite ceramics owing to its stratified structure. The use of talcs with stratified structure must still be investigated. There are 2 figures, 3 tables, and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc.

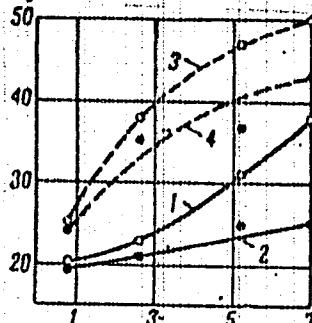
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Effect of ferrous oxides on the properties.

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$\text{tg}\delta \cdot 10^4$  B105/B206

Legend to Fig. 1: 1) temperature 20°C, fired in oxidizing medium; 2) ditto, fired in reducing medium; 3) temperature 80°C, fired in oxidizing medium, 4) ditto, fired in reducing medium; f = 1 mc/sec  
a) content of  $\text{Fe}_2\text{O}_3$ .



Legend to Table 1: a) content, b) talc,  
c) sum, d) Onotskoye, e) Shabrovskiy,  
floated.

Тальк	Содержание в %						сумма
	п. п.	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	
Онотскый	4,99	61,22	0,43	0,36	Следы	32,53	100,03
Шабровский флотиро- ванный	7,42	56,39	0,90	3,12	0,09	32,31	100,23

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Effect of ferrous oxides on the properties...

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Legend to Fig. 2: 1) bending strength, fired in oxidizing medium; 2) ditto, fired in reducing medium; 3) thermal stability on firing in oxidizing medium; 4) ditto, on firing in reducing medium, a) content  $\text{Fe}_2\text{O}_3$ , b) bending strength,  $\text{kg}/\text{cm}^2$ , c) thermal stability,  $^\circ\text{C}$ .

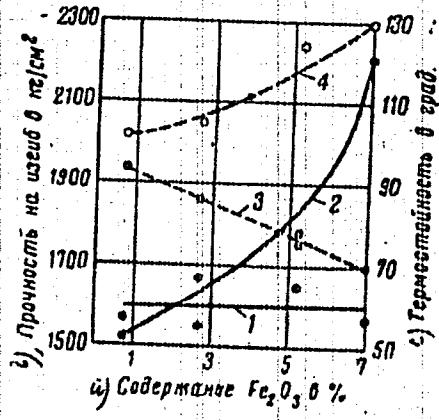


Рис. 2

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Effect of ferrous oxides on the properties...

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Таблица 2

№ массы	$\zeta$	В окислительной газовой среде				В восстановительной газовой среде			
		$Fe_2O_3$	$FeO$	$Fe_2O_3/FeO$	сумма окис- дов в пере- счете на $Fe_2O_3$	$Fe_2O_3$	$FeO$	$Fe_2O_3/FeO$	сумма окис- дов в пере- счете на $Fe_2O_3$
1	0,87	0,63	0,24	2,6	0,90	0,32	0,50	0,64	0,88
2	2,60	1,80	0,72	2,5	2,60	0,47	1,90	0,25	2,58
3	5,00	4,10	0,76	5,4	4,95	0,80	3,72	0,21	4,95
4	7,00	5,60	0,86	6,5	6,56	0,82	5,16	0,16	6,56
5	2,60	1,98	0,81	2,5	2,88	0,86	1,91	0,45	2,98

Legend to Table 2: 1) №. of the mass; 2)  $Fe_2O_3$  calculated; 3) in oxidizing gas medium; 4) in reducing gas medium; 5) sum of oxides calculated as  $Fe_2O_3$ .

Card 6/6

## AUTHORS:

Avetikov, V. G., Zin'ko, E. I.  
Zasedateleva, N. A.

S/072/60/000/03/007/023  
B003/B008

## TITLE:

High-frequency Ceramics on Wollastonite Basis

## PERIODICAL:

Steklo i keramika, 1960, Nr 3, pp 25-29 (USSR)

## ABSTRACT:

Wollastonite has lately been used increasingly for electro-ceramics owing to its favorable electric properties. In the Soviet Union there are larger wollastonite deposits in the following regions: in the region north of the Balkhash Lake, in the "Western Dzhangalyk" Mines in Northern Tadzhikistan, where wollastonite accumulates as barren rock and goes into backfilling, in the Aldan region of the Yakutskaya ASSR; according to information from the Institut geologii AN Uzbekskoy SSR (Institute of Geology of the AS of the Uzbekskaya SSR) in the Nakpay deposit, but also in other deposits of Uzbekistan: Lyangar, Koytash, Ingichka, Chatkal'skiy Range. Wollastonite from Dzhangalyk was investigated. The most important impurities are epidote, diopside and sphene. The material was cleaned twice (Table 2) with the separator 138-SE at the laboratoriya elektricheskikh i magnitnykh metodov obogashcheniya, Institut gornogo dela AN SSSR (Laboratory for Electric and Magnetic Dressing Methods of the Institute of Mining AS USSR); analyses are given in table 3. A ceramic mass

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**High-frequency Ceramics on Wollastonite Basis**S/072/60/000/03/007/023  
B003/B008

was produced with an addition of 10% barium carbonate and 20% clay from Chasov Yar; the electric properties were investigated (Fig. 1). Since wollastonite changes practically irreversibly into pseudowollastonite, at about 1250° with a change in structure, it was the main thing to lower the firing temperature. Four masses were produced: VD-6 with 5% lead boron glass, VD-7 with 5% ascharite, VD-8 with 10% quartz sand and VD-9 with 3% boracite glass. The investigation with the petrographic microscope was carried out by E. I. Medvedovskaya (Figs 2-4). The firing temperatures are 1120, 1210, 1290, and 1300°. For wollastonite from Dzhangalyk the change into pseudo-wollastonite occurs at 1290°. There are 4 figures and 5 tables.

Card 2/2

AVETIKOV, V.G., kand.tekhn.nauk; ZIN'KO, E.I., kand.tekhn.nauk; ZASEDATELEVA,  
inzh.; LESNIKOVA, L.A., inzh.

Steatite with an expanded temperature range of vitrification. Trudy  
GIEKI no.4:34-46 '60. (MIRA 15:1)  
(Ceramics) (Electric insulators and insulation)

Subject : USSR/Chemistry AID P - 3564  
Card 1/1 Pub. 152 - 1/20  
Authors : Avetikov, V. G., P. P. Budnikov, and E. I. Zin'ko  
Title : Effect of the composition of the glasslike phase of  
steatite on some of its characteristics  
Periodical : Zhur. prikl. khim., 28, 7, 673-680, 1955.  
Abstract : The glasslike phase is characterized by KMS, the coefficient  
of the molecular ratio of glass-forming oxides to  
non-glass-forming oxides. The increase in the CaO- or  
BaO-content and decrease in the silica-content improve  
the dielectric characteristics of steatite. Five tables,  
one diagram, 16 references, 14 Russian (1944-1953).  
Institution : None  
Submitted : Mr 18, 1954

ACC NR: AP6031840

(A)

SOURCE CODE: UR/0131/66/000/007/0058/0060

AUTHOR: Borisova, A. Yu.; Zin'ko, E. I.; Fedina, I. V.

ORG: State Scientific Research Electroceramics Institute (Gosudarstvennyj nauchno-issledovatel'skiy elektrokeramicheskiy institut)

TITLE: A superduty refractory based on magnesia-alumina spinel

SOURCE: Ogneupory, no. 7, 1966, 58-60

TOPIC TAGS: refractory compound, magnesium oxide, alumina, ceramic pressing

ABSTRACT: As established by an experimental study of batches with different ratios of MgO to Al<sub>2</sub>O<sub>3</sub> (3:1, 1:1, 1:3), pressed into 15 mm high briquets with a diameter of 100 mm, which were fired at from 1450 to 1750°C, increasing the content of technical alumina in magnesite refractory mass to a MgO:Al<sub>2</sub>O<sub>3</sub> ratio of 1:3 leads to an increase in the temperature of initial deformation under load (4% compression) and to the synthesis of a new crystalline phase — magnesia-alumina spinel at 1600–1650°C. This also results in an increase in spalling resistance (3–5 heating – cooling cycles) and in some decrease in refractoriness (to 2120°C compared with > 2300°C for batch KM-O (MgO:Al<sub>2</sub>O<sub>3</sub> = 1:0)). Of the batches tested,

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UDC: 666.856

ACC NR: AP6031840

batch KM-3 ( $MgO:Al_2O_3 = 1:2.54$ ) proved to be most suitable for the fabrication, by the semi-dry pressing method, of saggers, trays and other accessories for the firing of ceramic and refractory products at temperatures of up to 1950°C. Orig. art. has: 1 table.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 014

Card 2/2

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

ZIN'KO, F. (Odessa)

Communist Youth League member Olia TSiupko. Kryl.rod. 8 no.3:8-9  
Mr '57. (MLKA 10:5)  
(TSiupko, Olia)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

ZIN'KO, Feliks

Ship's machinists. Voen. znan. 35 no.9:28-29 S '59.  
(MIRA 12:12)  
(Russia--Navy)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

ZIN'KO, F.

What the exhibits of the museum tell us. Mor.flot 26  
no.1:37-38 Ja '66.

(MIRA 19:1)

1. Glavnyy metodist Muzeya morskogo flota SSSR.

ZIN'KO, V.Z.

Motion pictures for railroad track workers. Put' i put, khcz. 5  
no.3:38 Mr '61. (MIRA 14:3)  
(Motion pictures in industry)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

ZIN'KO, Z.V.

Trackworkers on the motion-picture screen. Put' i put' khov.  
no.6:48 Je '59. (MIRA 12:10)  
(Railroads--Track) (Motion pictures in industry)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

ZIN'KO, Z.V.

"Wartime economy of the U.S.S.R. during the period of the Great Patriotic War." N.Voznesenskii. Reviewed by Z.V.Zin'ko. Tekh. zshel.dor. 7 no.1:32 Ja '48. (MLRA 8'11)  
(World War, 1939-1945--Economic aspects) (Voznesenskiy,N.)

1. ZIN'KOV, A.
2. USSR (600)
4. Technology
7. New methods of cutting ore. Moskva, Profizdat, 1952
  
9. Monthly List of Russian Accessions, Library of Congress, February, 1953. Unclassified.

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

GNEVUSHEV, M.A.; BARTOSHINSKIY, Z.V.; ZINKOV, A.P.

Distribution of diamonds in the kimberlite pipes of western  
Yakutia. Trudy IAFAN SSSR. Ser.geol. no.6:100-122 '61.

(NIRI 14:9)

(Yakutia--Diamonds)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

DIORDIYENKO, I.A., kand.med.nauk; ZIN'KOV, M.L.

Change in fluid pressure following intravenous injection of euphyllin  
and glucose. Vrach.delo no.5:535 My '59. (MIRA 12:12)

1. Kafedra nervnykh bolezney Krymskogo meditsinskogo instituta i  
nevrologicheskoye otdeleniye Pervoy Simferopol'skoy gorodskoy bol'-  
nitsy (nauchnyy rukovoditel' - prof. N.N. Pyatnitskiy).  
(AMINOPHYLLINE) (GLUCOSE) (CEREBROSPINAL FLUID)

PYATNITSKIY, N.N.; ZIN'KOV, M.L.

Pathophysiology of narcolepsy. Zh. nevropat. psichiat., Moskva 53 no. 3:  
219-221 Mar 1953. (CIML 25:1)

1. Clinic for Nervous Diseases of the Crimean Medical Institute.

AVCHUKOVA, V.S.; ZIN'KOV, M.L.

Case of atypical course of multiple sclerosis simulating a spinal tumor. Vrach.delo no.12:1327-1329 D '59. (MIRA 13:5)

1. Pervaya Simferopol'skaya klinicheskaya bol'nitsa (nauchnyy rukovoditel' - prof. N.N. Fyatnitskiy [deceased]).  
(MULTIPLE SCLEROSIS)

ZIN'KOV, M.L. (Simferopol')

Regional cerebral arterial pressure in dystonias of the hypotensive type. Vrach. delo no.3:129-130 Mr '64. (MIRA 17:4)

1. Pervaya Simferopol'skaya klinicheskaya bol'nitsa. Nauchnyy rukovoditel' raboty - zaveduyushchiy kafedroy propedevtiki vnutrennikh bolezney Krymskogo meditsinskogo instituta prof. A.B.Shakhnazarov.

*ZIN'KOV, M. L.*

COUNTRY	:	USSR	V
CATEGORY	:	Pharmacology and Toxicology. Miscellaneous Preparations	
ABS. JOUR.	:	RZhMed., No. 5 1959, №. 23215	
AUTHOR	:	Zin'kov, M. L.; Gol'dina, A. S.	
INST.	:	<u>-</u>	
TITLE	:	Treatment of the Lumbosacral Portion of the Peripheral Nervous System with Bee Venom	
ORIG. PUB.	:	Vrachens. delo, 1957, prilozh., 79-80	
ABSTRACT	:	The treatment of 14 patients affected with various forms of radiculitis, from 6 weeks to 6 years old, was carried out according to the method of N. P. Torish. On the first day, the patients received one bee sting and during the subsequent 10 days a sting was added each day. After a 3-day interval, the patients received 3-5 stings in a space of 2 weeks. The local reaction was expressed by a mild hyperemia up to considerable infiltrations associated with	
Card:	1/3		

COUNTRY :	V
CATEGORY :	
ARS. JOUR. :	RZMnich., №. 5 1959, №. 23215
AUTHOR :	
INST. :	
TITLE :	
OPIG. PUB. :	
ABSTRACT cont'd	painfulness and itching. The general reaction (headache, malaise, tachycardia, general itching, chill, facial edema, decrease of appetite and pains in the epigastric region) was observed on the 7-8th day of the treatment and lasted up to 48 hours. Leukocytosis was noted in the blood of patients with a shift of the formula to the left. Recovery occurred in four patients, and an im-
Card:	2/3
	67

COUNTRY :	
CATEGORY :	
ABS. JOUR. :	RZhBiol., No. 5 1959, No. 23215
AUTHOR :	
INST. :	
TITLE :	
ORIG. PUB. :	
ABSTRACT cont'd	: provement in the remaining cases, save one pa- tient with meningoaradiculitis.
Card:	3/3

USSR/Human and Animal Physiology - (Normal and Pathological).  
Neuro-Muscular Physiology.

T

Abs Jour : Ref Zhur Biol., No 4, 1959, 17871

Author : Zin'kov, M.L.

Inst :

Title : Objective Method of Investigation of the Power of Muscles  
of Extremities.

Orig Pub : Vrachebn. delo, 1958, No 4, 423-424

Abstract : No abstract.

Card 1/1

SHAKHNAZAROV, A.B., prof.; SIN'KOV, M.L. (Simferopol')

Regional arterial blood pressure in neurocirculatory dystonia.  
Klin.med. 41 no.9:67-72 S\*63 (MIRA 17:3)

1. Iz kafedry propedevtiki vnutrennikh bolezney Krymskogo meditsinskogo instituta.

ZIN'KOV, M.L.

Diseases of the nervous system following influenza. Vrach. delo  
no.4:88-90 Ap '61. (MIFA 14:6)

1. Pervaya simferopol'skaya gorodskaya bol'nitsa. (Nauchnyy rukovoditel':  
zav. kafedroy propedevtiki vnutrennikh bolezney prof. A.B.Shakhna-  
zarov).

(INFLUENZA) (NERVOUS SYSTEM--DISEASES)

ZIN'KOV, M.L.

Treatment of neuritis of the facial nerve with proserine  
electrophoresis. Vop. kur. fizioter. i lech. fiz. kul't.  
25 no. 5:412-414 S-O '60. (MIRA 13:10)

1. Iz 1-y Simferopol'skoy gorodskoy bol'nitsy (nauchnyy  
rukovoditel' - prof. N.N. Pyatnitskiy, glavnyy vrach A.D.  
Vydritskaya).

(NERVES, FACIAL-DISEASES) (PROSTIGMINE)  
(ELECTROPHORESIS)

ZIN'KOV, M.L.

Use of euphyllin for acute circulatory disturbances of the brain.  
Vrach. delo no.4:383-385 Ap '59. (MIFI A 12:7)

1. Pervaya Simferopol'skaya gorodskaya bol'nitsa (nauchnyy rukovoditel'  
- prof. A.B. Shakhnazarov).  
(BRAIN--BLOOD SUPPLY) (AMINOPHYLLINE)

ZIN'KOV, M.L. (Simferopol')

A case of temporal arteritis. Klin.med. 36 no.9:139-140 S'58  
(MIRA 11:10)

1. In L-y Simferopol'skoy gorodskoy bol'nitsy (glavnyy vrach  
A.D. Vydritskaya).

(ARTHRITIS,  
temporal (Eng))

ZIN'KOV, M.L.

Objective method for testing the strength of muscles of the extremities.  
Vrach.delo no.4:423-424 Ap '58 (MIRA 11:6)

1. Nevrologicheskoye otdeleniye Pervoy Simferopol'skoy gorodskoy  
bol'nitsy (nauchnyy rukovoditel' - prof. N.N. Pyatnitskiy).  
(MUSCLES)  
(PHYSIOLOGICAL APPARATUS)

ZIN'KOV, M.L.

A case of the disturbance of vestibular function in streptomycin therapy. Probl. tub. no. 6:74 N-D 154. (MLRA 8:1)

1. Iz kliniki nervnykh bolezney (zav.-prof. N.N.Pyatnitskiy)  
Krymskogo meditsinskogo instituta imeni I.V.Stalina  
(STREPTOMYCIN, inj. effects  
vestibular funct. disord.)  
(VESTIBULAR APPARATUS, physiology  
funct. disord. caused by streptomycin ther.)  
(TUBERCULOSIS, therapy  
streptomycin, causing disord. of vestibular funct.)

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CIA-RDP86-00513R002065220009-5

ZIN'KOV, M.L.

HEL'MAN, Kh.L.; SEREYSKIY, N.Ya.; ZIN'KOV, M.L.

Letters to the editor. Zhur. nevr. i psikh. 54 no.12:1044 D '54.  
(NEUROPATHOLOGY) (MIRA 8:2)

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CIA-RDP86-00513R002065220009-5"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5

FYATNITSKIY, N. N., ZIN'KOV, N. L.

Sleep

Pathophysiology of narcolepsy. Zhur. nevr. i pesikh. 53, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress  
June 1953. UNCL.

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065220009-5"

ZIN'KOV, V.V.

Precise work schedule is the prerequisite of success. Put' i put,  
khoz. 9 no.5:13 '65. (MIRA 18:5)

1. Nachal'nik putevoy mashinnoy stantsii No.14, stantsiya Perm',  
Sverdlovskoy dorogi.

ZIN'KOV, Ye.Ye.

Organization of the technical inspection of locomotives in the  
Isil-Kul terminal depot. Elek. i tepl.tiaga 6 no.5:9-10 My '62.  
(MIRA 15:6)

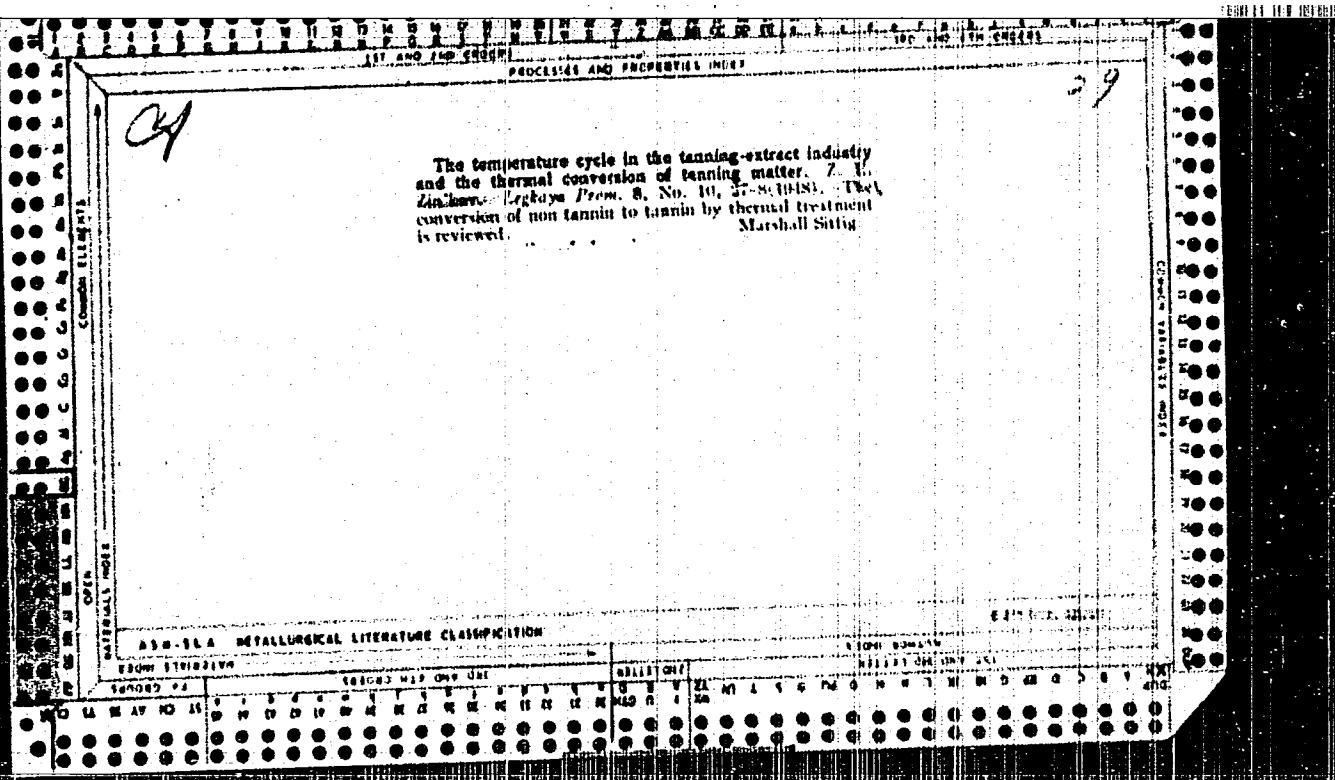
1. Nachal'nik depo Moskovka Zapadno-Sibirsckoy dorogi.  
(Isil-Kul—Locomotives—Inspection)

ZIN'KOV, Ye.Ye.

Our task is to increase locomotive efficiency. Klek. i tepl.  
tiaga no.6:6-8 Je '58.

(MIRA 11:6)

1.Nachal'nik lokomotivnogo depo Moskovka, Omskoy dorogi.  
(Electric locomotives--Maintenance and repair)





**BC**

New methods of determining sulphuric ester sulphonates. S. J. D'Amato, J. L. Darrow, V. Harapaticz, and G. M. Canova (cont.) (J. Appl. Chem., Russ., 1964, 6, 1907-1910).--The sulphuric ester sulphuric acid esters of sulphuric acids produce an ester with the appropriate sulfones which are extracted, washed, dissolved in  $\text{H}_2\text{O}_2$ , and titrated with  $\text{Na}_2\text{S}_2\text{O}_3$ . The most suitable reagents for the purifications of the esters for the m-nitro-sulphuric ester sulphuric acid ester are  $\text{CH}_3\text{CO}_2\text{H}$ ,  $\text{SO}_3\text{Na}$ ,  $\text{m-Cyld}$  (10%),  $\text{H}_2\text{O}_2$ ,  $\text{H}_2\text{O}$ , and  $\text{H}_2\text{O}_2$  (10%) for  $\text{2:1:6:10:10:10}$ ;  $\text{C}_2\text{H}_5\text{SO}_3\text{Na}$ ,  $\text{H}_2\text{O}_2$ , and  $\text{H}_2\text{O}$  for all mono- and disulphonate esters. Detailed instructions for the analysis of different mixtures of sulphuric acids are given.

R. T.

SPIN

MATERIALS RECEIVED

CHARGE LETTERS

## AEROSOL METALLURGICAL LITERATURE CLASSIFICATION

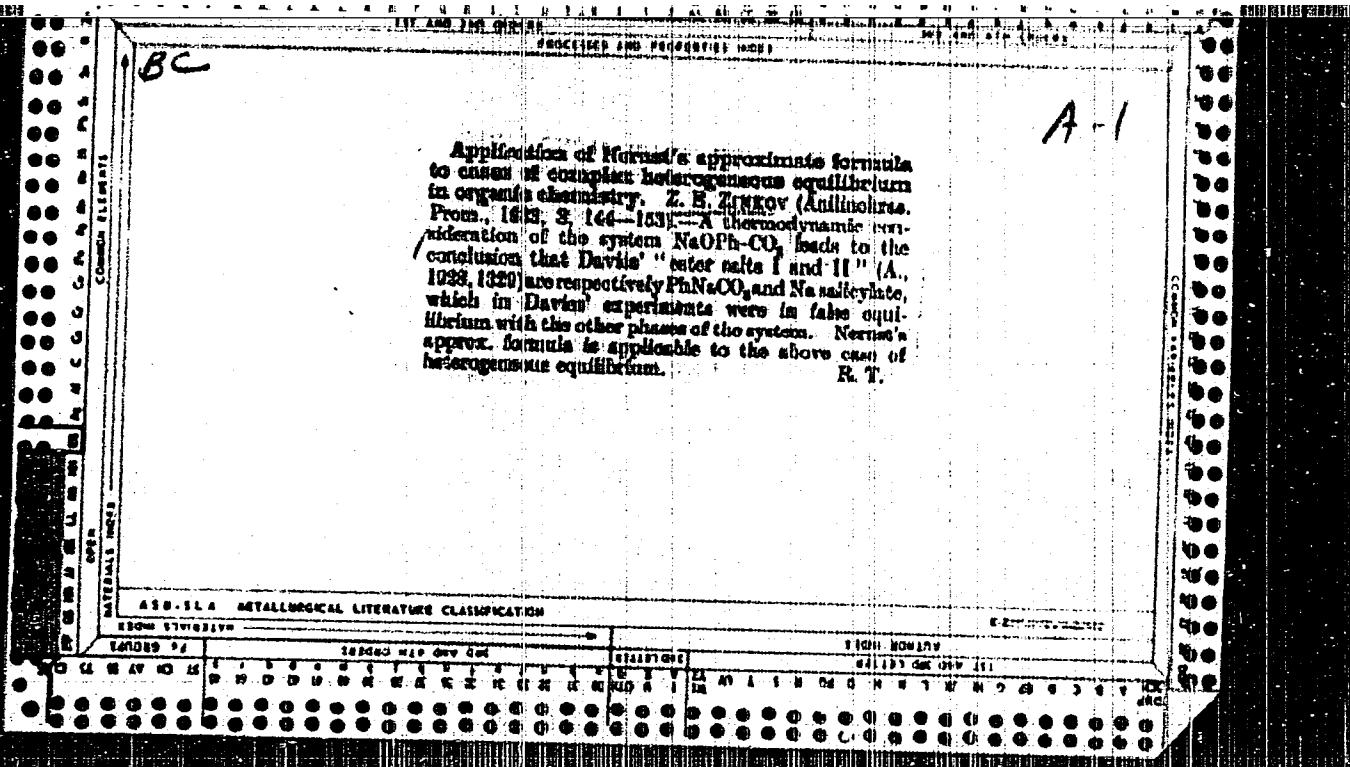
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Application of Nernst's approximate formula to cases of complex heterogeneous equilibrium in organic chemistry. Z. B. Tikhov (Anilinolines. Prom., 1913, 2, 144-153).—A thermodynamic consideration of the system  $\text{NaOPh}-\text{CO}_2$  leads to the conclusion that Daviss' "teter salts I and II" (A., 1928, 1329) are respectively  $\text{PhNa}_2\text{OO}$  and  $\text{Na salicylate}$ , which in Daviss' experiments were in false equilibrium with the other phases of the system. Nernst's approx. formula is applicable to the above case of heterogeneous equilibrium.

R.T.

A-1



A laboratory method for the determination of condensate recovery in boilers. Z. B. Zin'kov and M. A. Knyazeva. *Izgizgaz Prom.*, 8, No. 5, 150 (1948).—Titration with  $\text{AgNO}_3$  can be employed to det. the relative proportions of river water and condensate water in a boiler feed-water sample. Cf. A. I. Sniatkin, preceding abstr. Marshall Sittle

**AM-SEA METALLURGICAL LITERATURE CLASSIFICATION**

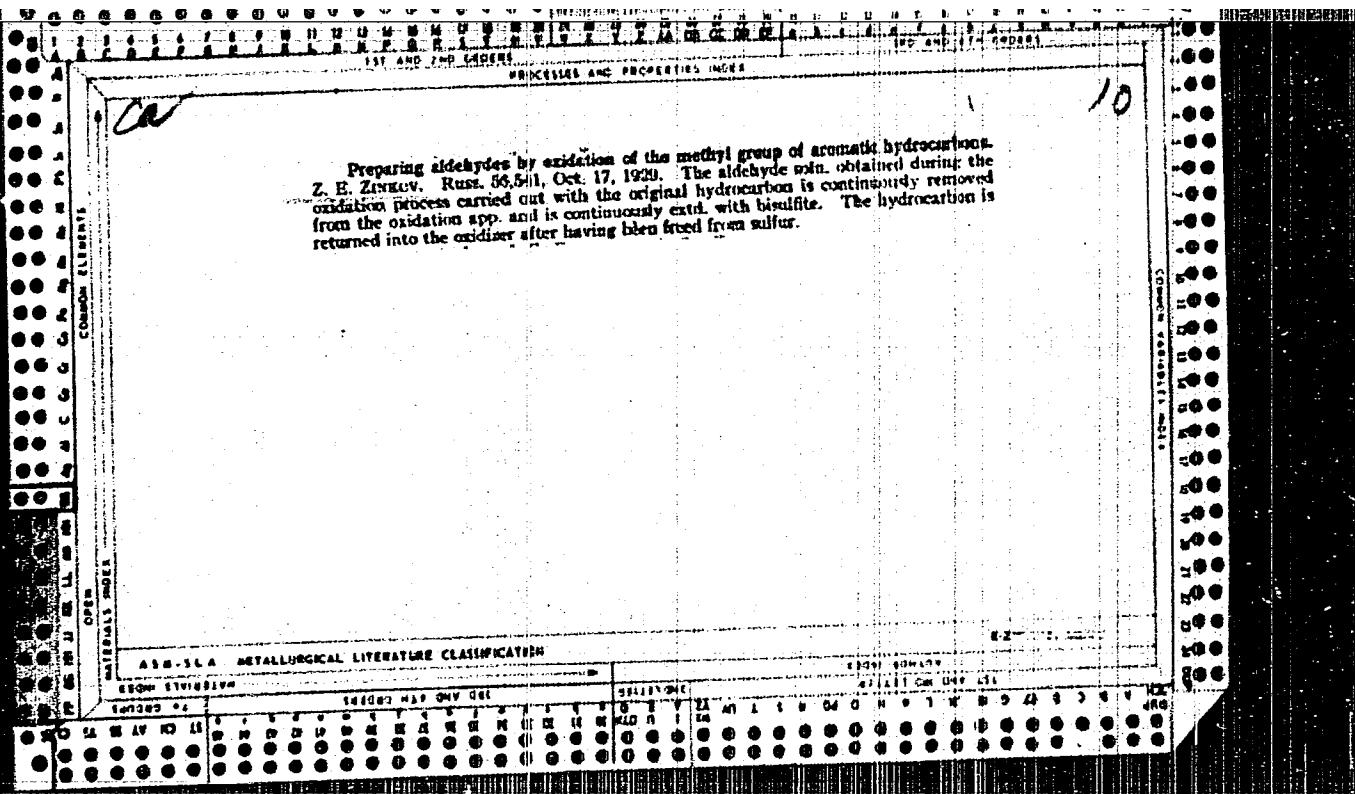
**APPROVED FOR RELEASE: 07/16/2001**

CIA-RDP86-00513R002065220009-5"

PROCESS AND PROPERTIES INDEX

Application of the Nernst approximation formula to complex cases of heterogeneous equilibrium in organic chemistry. Z. E. Zinov. *Andisntruzokhimijskij Prom.*, 3, 144-53 (1933).—In the study of the mechanism of formation of Na salicylate (I), the observed pressures and temps. for PhOCO<sub>2</sub>Na and the ester salt II of Davlet (C. A. 22, 2507) conform to the formulae of Nernst and Clausius-Clapeyron; this indicates a heterogeneous equil. The observations of D. and of Baum (cf. C. A. 10, 963; 10, 1321) of the tension and temp. for I with low values of pressure do not correspond to heterogeneous equil. Attempts were made to give interpretations with math. values of Kofle's reaction and the occurrence of ester salt II in the decomps. of I in closed vessels at higher temps., but the formation of a little p-C<sub>6</sub>H<sub>4</sub>(OH)CO<sub>2</sub>II in the fraction complicates the investigation. Chir. Blanc

ASA-ELA METALLURGICAL LITERATURE CLASSIFICATION



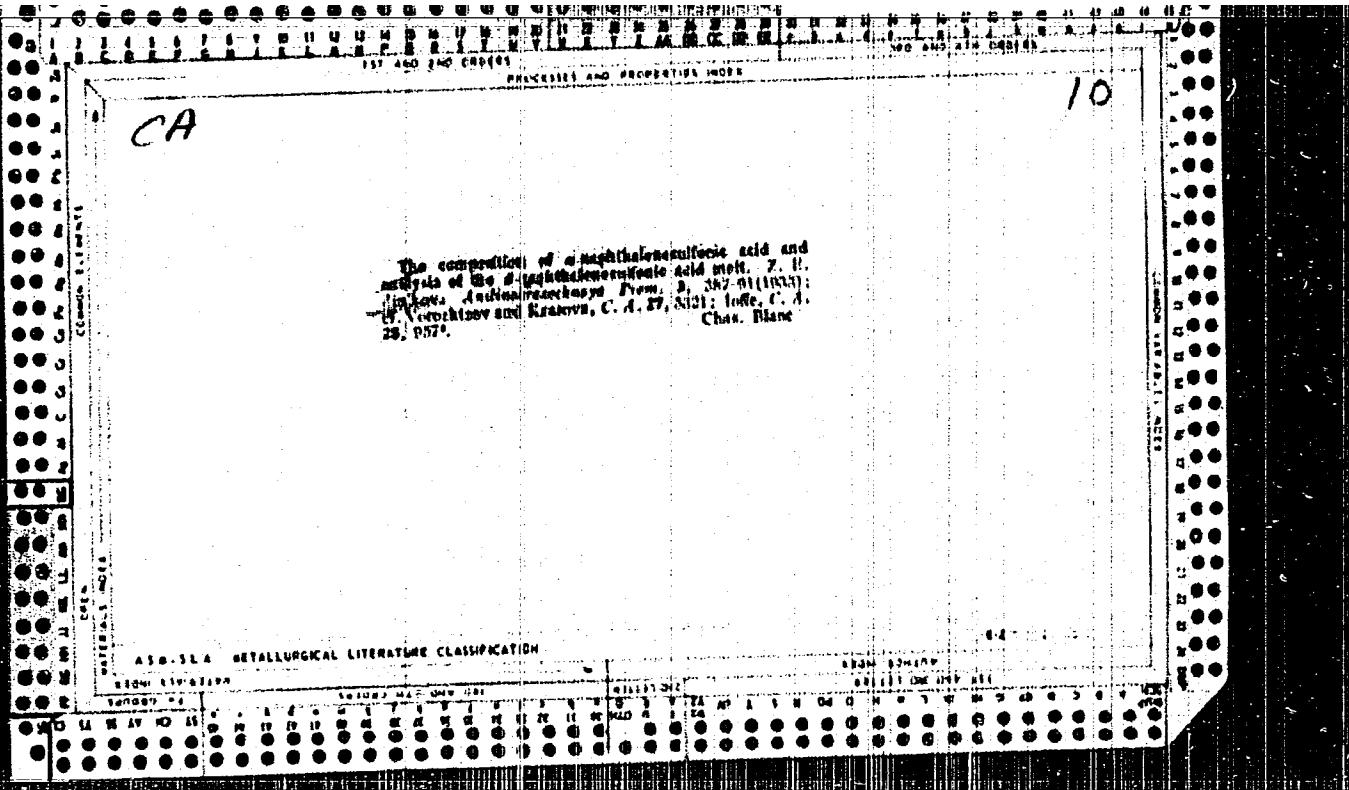
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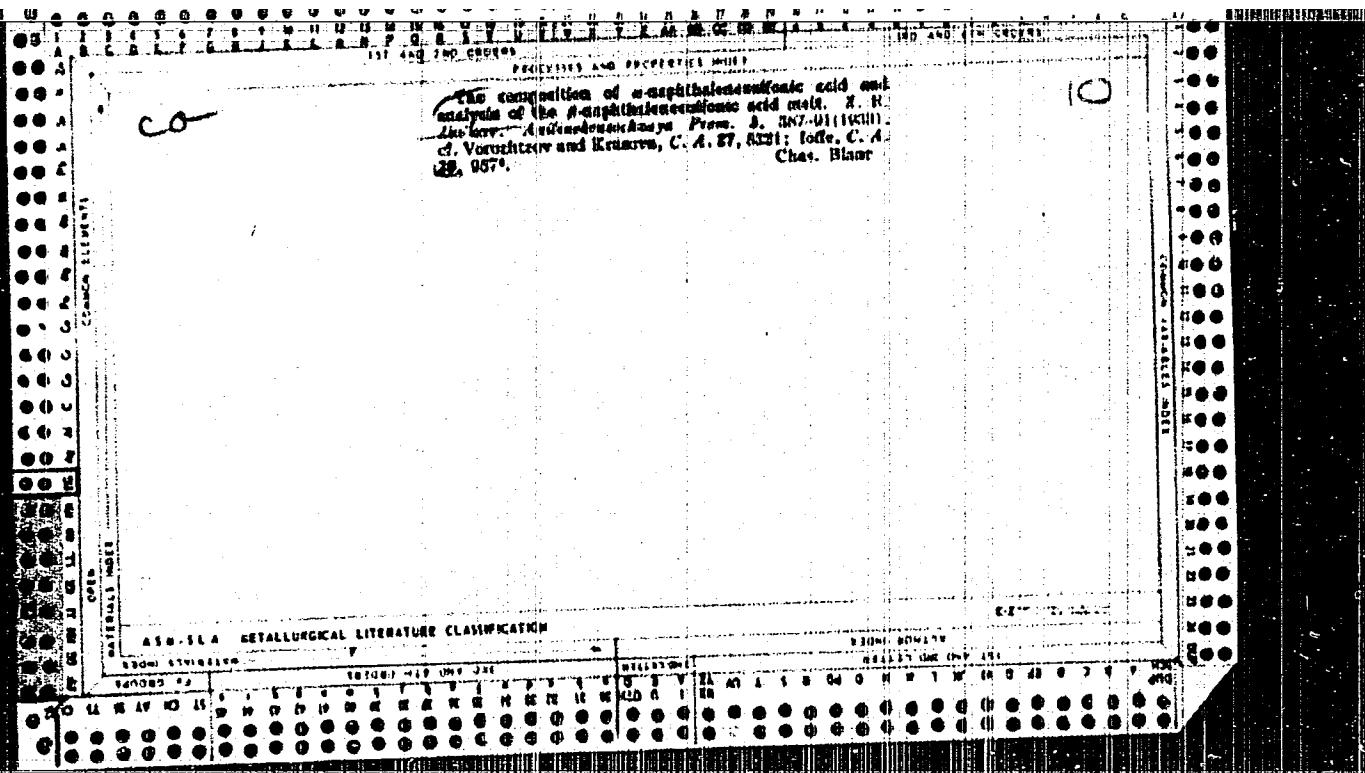
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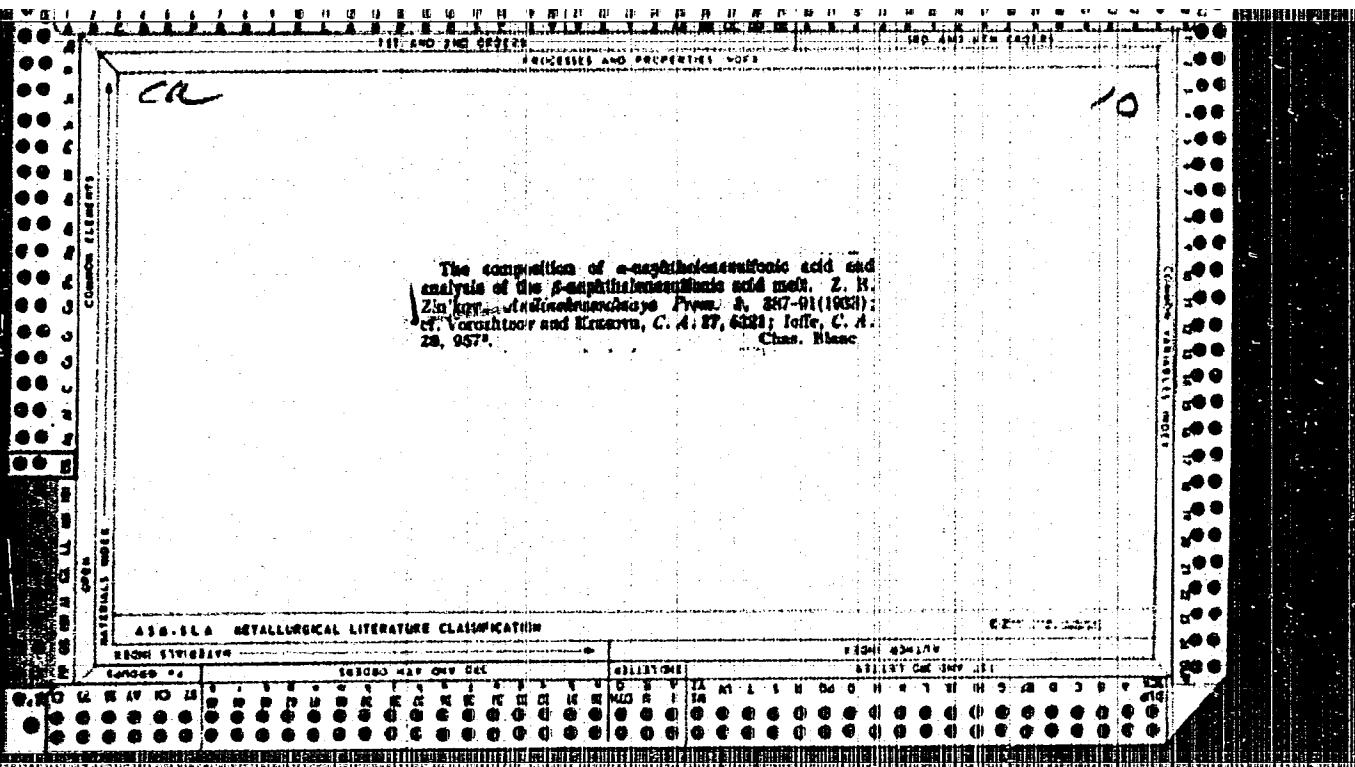
Determination of sulfonic acids of naphthalene. Z. B. Zhdanov, Ye. L. Dan'yushinskii, V. Reznikstein and G. M. Khomyakovskii. *J. Applied Chem.* (U. S. S. R.) 9, 1997-2220 (in German 2020) (1938).— $\alpha$ -Sulfonic acid is ppd. by  $C_6H_5NNH_2 \cdot HCl$  from a neutral soln. in 1 hr. (on ice bath) and the ppt., after boiling in water, is titrated with 0.1 N NaOH in the presence of pseudophthalic acid. The percentage of  $\alpha$ -sulfonic acid is:  $c_e \cdot 0.1 N$  NaOH used, times 2.04 plus 0.33. The error is  $\pm 0.22\%$ . 1,8-Disulfonic acid is ppd. from a neutral soln. with  $\alpha-(CH_3)_2C_6H_4NH_2 \cdot HCl$  from cold soln. and the ppt. is titrated as above. The percentage of acid is:  $(1.64 c - 0.28)/2$ , where  $c$  is cc. of 0.1 N NaOH used; the error is  $\pm 0.15\%$ .  $\alpha$ -Sulfonic acid is ppd. with  $3.2O_2N(MeO) \cdot C_6H_5NH_2 \cdot HCl$  from a neutral soln., added at boiling temp., to dissolve the amine, and, after cooling in an ice bath, the ppt. is titrated as above. The percentage of acid is:  $(2.08 c + 2.10) \pm 0.1\%$ . For the detn. of  $\alpha$ ,  $\beta$ , and the

sum of  $\alpha$ ,  $\beta$ , and  $\gamma$ -sulfonic acids, the following procedure is used: the  $\beta$  acid is detd. as above;  $\beta$ ,  $\alpha$  and  $\gamma$ -acids are detd. by the difference of the results of titration of the ppt., obtained by using  $H_3N^+CH_2C_6H_4NH_2 \cdot HCl$  (which ppt. all but  $\alpha$  acid) and by using  $C_6H_5NNH_2 \cdot HCl$  (ppt.  $\beta$  acid); the percentage of  $\beta$  acid is detd. as above and the sum of  $\beta$ ,  $\alpha$  and  $\gamma$  acids is:  $b = (a/3) + 0.01 + 0.21 \pm 0.23\%$ , where  $b$  is cc. of 0.5 N NaOH used in titration of the benzidine ppt. and  $a$  is cc. of 0.1 N NaOH used in titration of the phenethylhydrazine ppt. After nota. of  $\alpha$ ,  $\beta$ , and  $\gamma$  acids,  $\alpha$  acid is detd. by pptg. with  $O_2N(MeO) \cdot C_6H_5NH_2 \cdot HCl$  from a cold soln. and titration with 0.1 N NaOH in the presence of pseudophthalic acid. The percentage of  $\alpha$  acid is  $[0.1624 + 0.1024] (100/0) \pm 0.1\%$ . 1,8-Sulfonic acid is detd. by pptg. it together with  $\alpha$ ,  $\beta$  acids, with  $\beta$ - $C_6H_5NH_2 \cdot HCl$ , then detd. separately the percentages of  $\alpha$  and  $\beta$  acids by the methods given above; the difference of the results of the titration is the percentage of 1,8-acid. Combinations of the above methods permit analysis of mixts. for a disulfonic sulfonic acid with a fair degree of accuracy. *V. A. Pudgony*

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a-5

Oxidation of toluene to benzaldehyde and benzoic acid. I. N. Zinov'ev. Appl. Chem., Russia, 1932, 11, 904-911).—Yields are increased by removing the products from the  $K_2Cr_2O_7-H_2SO_4$  mixture as soon as they are formed. Cf. Ann.

## APPENDIX 1A METALLURGICAL LITERATURE CLASSIFICATION

EDISON ESTABLISHMENT OF THE U.S. NATIONAL METALLURGICAL LIBRARY

SEARCHED 6/4 SEARCHED MAY 1974 CAT.

INDEXED 6/4 INDEXED MAY 1974

FILED 6/4 FILED MAY 1974

ZIN'KO, Z.V.

Film of track maintenance and repair. Put' i put. khod. 7  
(MIRA 16:7)  
no.6:48 '63.

(Railroads—Track)

ZIN'KOV, Z.Ye., - PYLAYEVA, L.I.

Theory of dissociation extraction: separation of mixed  
aniline, monomethylaniline, and dimethylaniline. Zhur.prikl.khim.  
(MIRA 15:4)  
35 no.4:887-892 Ap '62.

1. Permskiy khimicheskiy zavod imeni S.Ordzhonikidze.  
(Aniline)

ZIN'KOV, Z.Ye.; BUDRINA, E.A.; ZAKHAROVA, N.G.

Distribution of nitric acid by phases in the continuous nitration of benzene. Zhur.prikl.khim. 35 no.1:139-141 Ja '62. (MIR 15:1)

1. Permskiy khimicheskiy zavod imeni S.Ordzhonikidze.  
(Nitric acid) (Benzene)